OBSERVATIONS & RECOMMENDATIONS

After reviewing data collected from **MOUNTAIN LAKES** the program coordinators recommend the following actions.

North Station

FIGURE INTERPRETATION

- Figure 1: These graphs illustrate concentrations of chlorophyll-a in the water column. Algae are microscopic plants that are a natural part of lake ecosystems. Algae contain chlorophyll-a, a pigment necessary for photosynthesis. A measure of chlorophyll-a can indicate the abundance of algae in a lake. The historical data (the bottom graph) show a *slightly improving* in-lake chlorophyll-a trend, meaning concentrations are decreasing. Chlorophyll concentrations were slightly elevated from last season probably as a result of the increase in rain, which washed nutrients into the lake that can cause algae to grow. The blue-green alga *Oscillatoria* was found in the lake in June. This is the second year that we have observed blue-greens in the lake. Blue-green algae, or cyanobacteria, can be indicators of pollutants entering the lake. While algae are present in all lakes, an excess amount of any type is not welcomed. Concentrations can increase when there are external and internal sources of phosphorus, which is the nutrient algae depend upon for growth. It's important to continue the education process and keep residents aware of the sources of phosphorus and how it influences lake quality.

- Figure 2: Water clarity is measured by using a Secchi disk. Clarity, or transparency, can be influenced by such things as algae, sediments from erosion, and natural colors of the water. The graphs on this page show historical and current year data. The lower graph shows a *slightly improving* trend in lake transparency. Transparency in June was lower due to more algae growth, but recovered in September. Mean transparency values were above the NH mean reference line for the second year! The 2000 sampling season was considered to be wet and, therefore, average transparency readings are expected to be slightly lower than last year's readings. Higher amounts of rainfall usually cause more eroding of sediments into the lake and streams, thus decreasing clarity

- Figure 3: These figures show the amounts of phosphorus in the epilimnion (the upper layer in the lake) and the hypolimnion (the

lower layer); the inset graphs show current year data. Phosphorus is the limiting nutrient for plants and algae in New Hampshire waters. Too much phosphorus in a lake can lead to increases in plant growth over time. These graphs show an *improving* trend for in-lake phosphorus levels, which means levels are decreasing. The phosphorus concentration was stable at the beginning and end of the season for both layers. The concentration decreased in both layers from last season and we hope that this trend continues. One of the most important approaches to reducing phosphorus levels is educating the public. Humans introduce phosphorus to lakes by several means: fertilizing lawns, septic system failures, and detergents containing phosphates are just a few. Keeping the public aware of ways to reduce the input of phosphorus to lakes means less productivity in the lake. Contact the VLAP coordinator for tips on educating your lake residents or for ideas on testing your watershed for phosphorus inputs.

OTHER COMMENTS

- On our September visit to the Mountain Lakes we toured the shoreline of both lakes looking for any erosion problems or other issues that could affect lake quality. No violations were observed, and in fact, the residents of the Mountain Lakes District should be applauded for leaving native vegetation along the shoreline. This was the case around much of both lakes. Shoreline vegetation reduces erosion problems and helps lessen nutrient concentrations before they can enter the lake. Keep up the good work!

- In 1999 and 2000 clumps of the blue-green alga *Oscillatoria* were observed floating in the lake. The alga was observed in June of both seasons. Spring snowmelt and rains likely increased the nutrient input to the lake causing the alga to increase. We suggest sampling in May, possibly when algal concentrations are greatest, so we will be able to locate potential problems during that period. Blue-green algae can become nuisance species when sufficient nutrients and favorable environmental conditions are present. While overall algal abundance continues to be low, the presence of these indicator species should serve as a reminder of the lake's delicate balance. Continued care to protect the watershed by limiting or eliminating fertilizer use on lawns, keeping the lake shoreline natural, and properly maintaining septic systems and roads will keep algae populations in balance.

- **Please note** in June this summer the epilimnetic and outlet phosphorus levels were recorded asless than 5 µg/L (Table 8). The NHDES Laboratory Services adopted a new method of reporting total phosphorus this year and the lowest value that can be recorded is 'less than 5 µg/L'. We would like to remind the association that a reading of 5 µg/L is considered low for New Hampshire's waters.

- In-lake conductivity decreased this year after being elevated for the past two years (Table 6). Conductivity increases often indicate the influence of human activities on surface waters. This decreasing trend is a positive sign. Septic system leachate, agricultural runoff, iron deposits, and road runoff can each influence conductivity readings.

NOTES

- Monitor's Note (6/6/00): Raining during sampling.

- Biologist's Note (6/6/00): Blue-green algae clumps identified as *Oscillatoria*. Weed identified last September as *Najas* (Water Naiad).

- Biologist's Note (9/12/00): Heavy growth of sedges along western shore.

South Station

FIGURE INTERPRETATION

- Figure 1: The chlorophyll-a concentration appears to be *stabilizing* in the South Station. Concentrations were elevated in June. Spring rainfall along with snowmelt may have flushed nutrients into the lake, causing an increase of algal production. By September, concentrations recovered. We hope that algal abundance remains low at this station.

- Figure 2: Transparency has remained *fairly stable* at this station. Water clarity was lower in June possibly as a result of the increase in algal growth. September readings were the highest the South Station has ever experienced and were above the NH mean value!

- Figure 3: The phosphorus concentration has been *slightly improving* in the epilimnion and hypolimnion. Phosphorus results were elevated in the hypolimnion in September possibly as a result of the turbidity of the sample. Sediment contamination of the sample can increase phosphorus concentration and yield inaccurate results. The concentration in the epilimnion has remained relatively stable in the past three years. We hope to see this trend continue.

OTHER COMMENTS

- In June, the phosphorus concentration for the hypolimnion and Monteau Inlet were recorded as less than 5 ìg/L (Table 8). Phosphorus concentrations were also observed as less than 5 ìg/L in the North Station, and are healthy levels for New Hampshire lakes and ponds.

- In September, the blue-green algae *Anabaena* and *Coelosphariu*m were observed (Table 2). Blue-green algae can reach nuisance levels when sufficient nutrients and favorable environmental conditions are present. While overall algal abundance continues to be low in the

lake, the presence of these indicator species should serve as a reminder of the lake's delicate balance. Continued care to protect the watershed by limiting or eliminating fertilizer use on lawns, keeping the lake shoreline natural, and properly maintaining septic systems and roads will keep algae populations in balance.

- Conductivity, phosphorus, and turbidity were high in Monteau Inlet in September. It was noted that a beaver dam was blocking the flow of the Inlet, thereby creating stagnant waters. Stagnant water can yield high results for all of the above parameters due to nutrients becoming concentrated, instead of being flushed out by the flow of the water.

NOTES

- Monitor's Note (6/6/00): Beaver dam on south side. Raining while sampling Monteau.

- Monitor's Note (9/12/00): Beaver dam blocking Monteau Inlet. Lots of plant growth below dam, no immediate flow. Anchor drifting, plankton haul not really vertical.

USEFUL RESOURCES

Stormwater Management and Erosion and Sediment Control Handbook. NHDES, Rockingham County Conservation District, USDA Natural Resource Conservation Service, 1992. (603) 679-2790.

A Guide to Developing and Re-Developing Shoreland Property in New Hampshire: A Blueprint to Help You Live By the Water. North Country RC&D, 1994. (603) 527-2093.

Beavers and Their Control. UNH Cooperative Extension/NH Fish and Game, 1990. (603) 862-2346, or ceinfo.unh.edu

A Brief History of Lakes, NH Lakes Association pamphlet, (603) 226-0299 or www.nhlakes.org

Anthropogenic Phosphorus and New Hampshire Waterbodies, NHDES-WSPCD-95-6, NHDES Booklet, (603) 271-3503

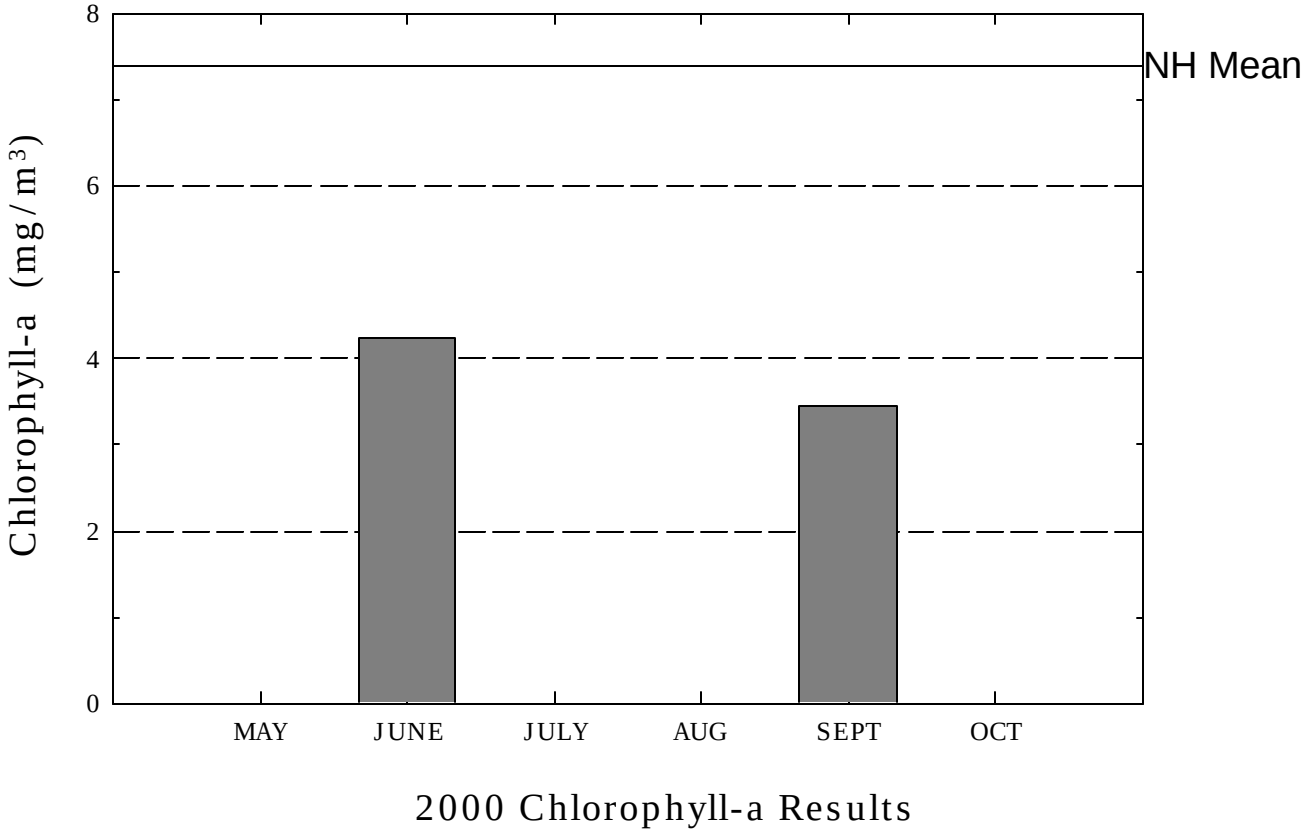
Vegetated Phosphorus Buffer Strips, NH Lakes Association pamphlet, (603) 226-0299 or www.nhlakes.org

Through the Looking Glass: A Field Guide to Aquatic Plants. North American Lake Management Society, 1988. (608) 233-2836 or www.nalms.org

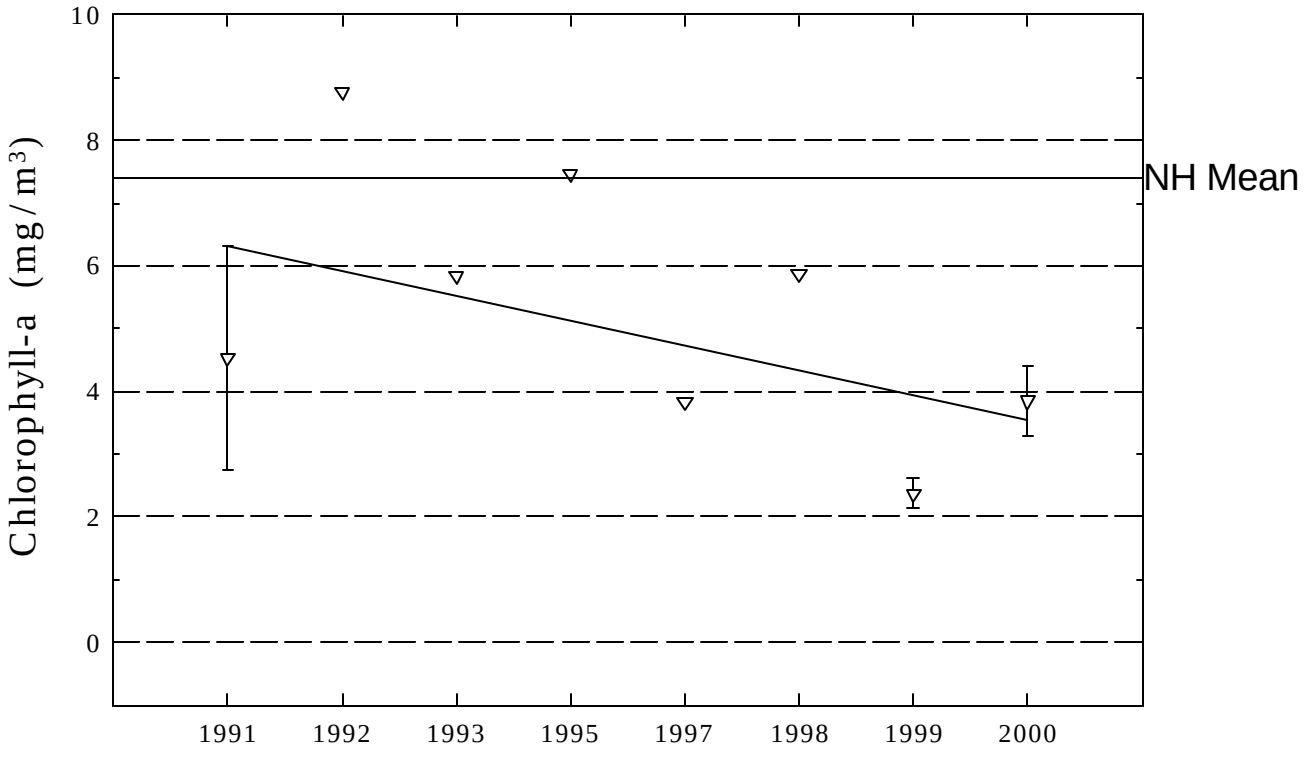
The Blue Green Algae. North American Lake Management Society, 1989. (608) 233-2836 or www.nalms.org

Mountain Lake, North

Figure 1. Monthly and Historical Chlorophyll-a Results



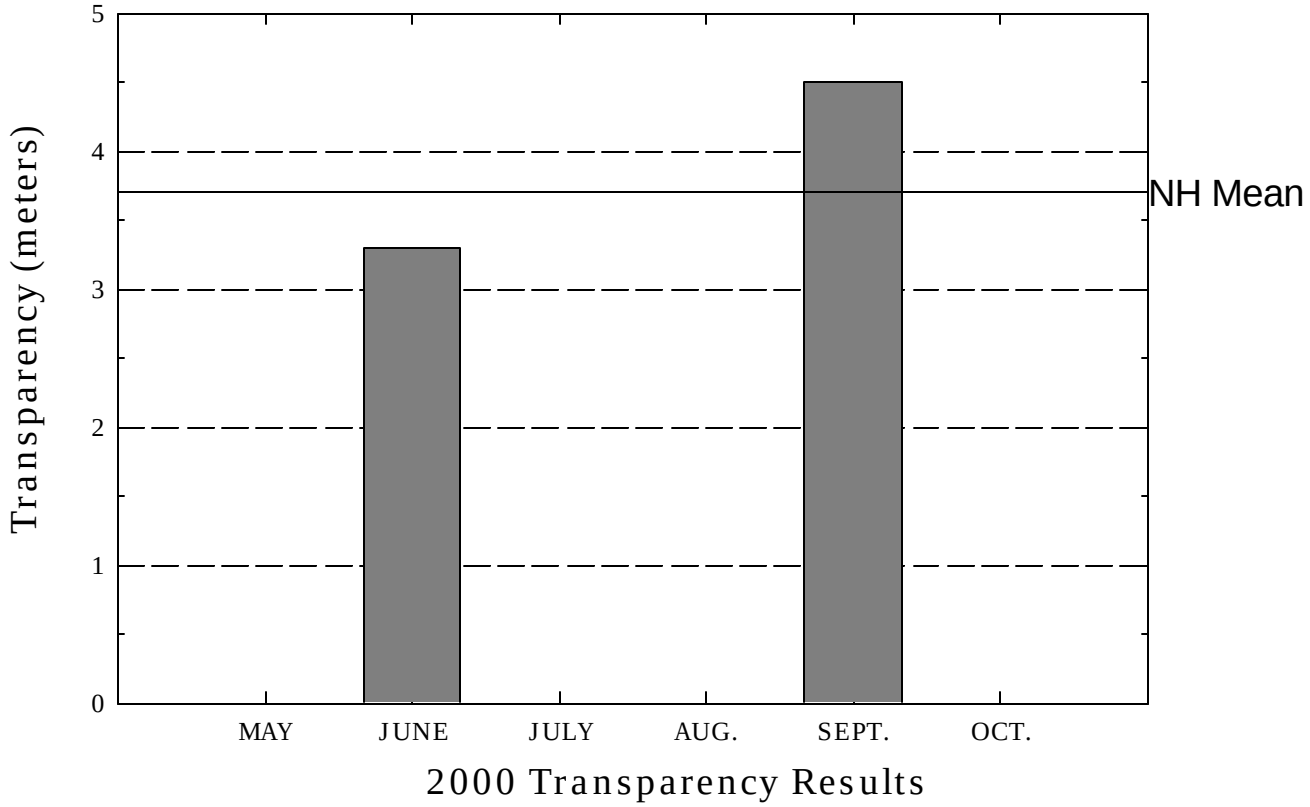
2000 Chlorophyll-a Results

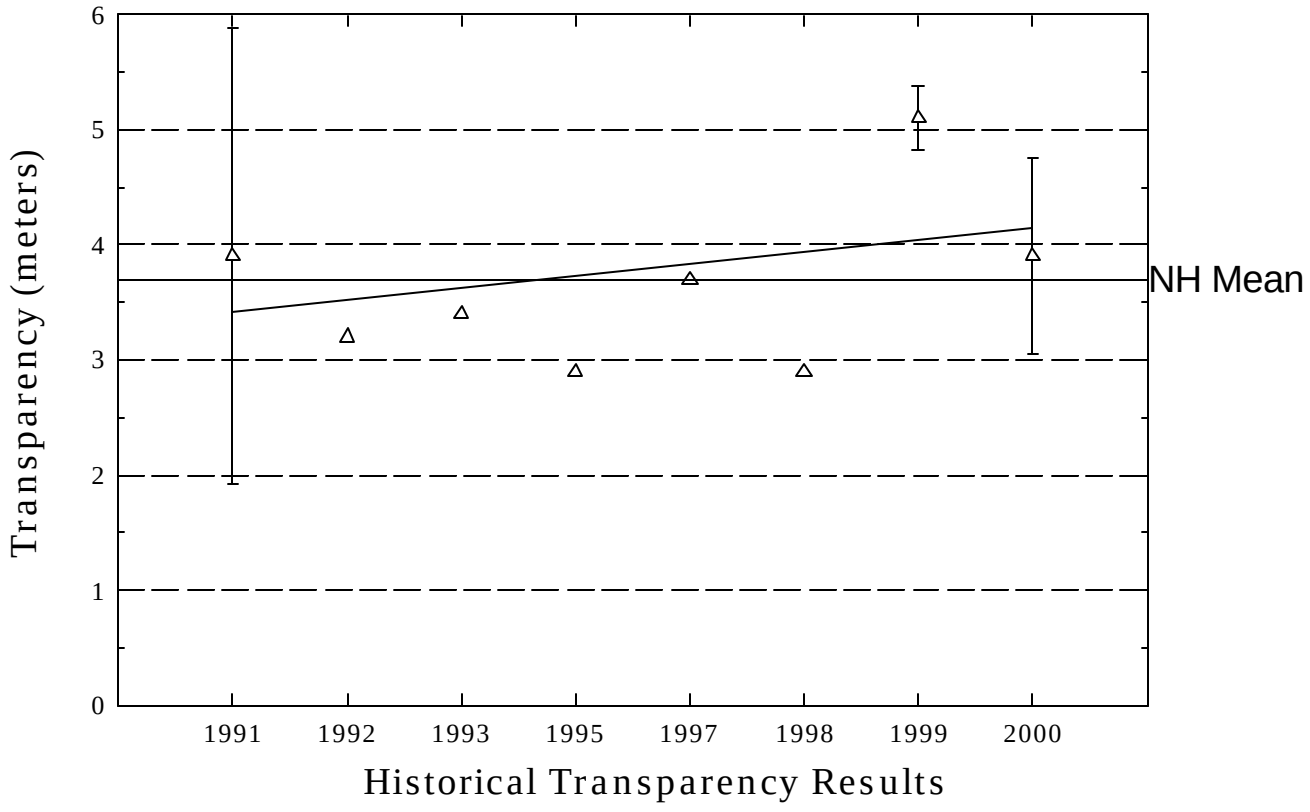


Historical Chlorophyll-a Results

Mountain Lake, North

Figure 2. Monthly and Historical Transparency Results





Mountain Lake, North

Figure 3. Monthly and Historical Total Phosphorus Data.

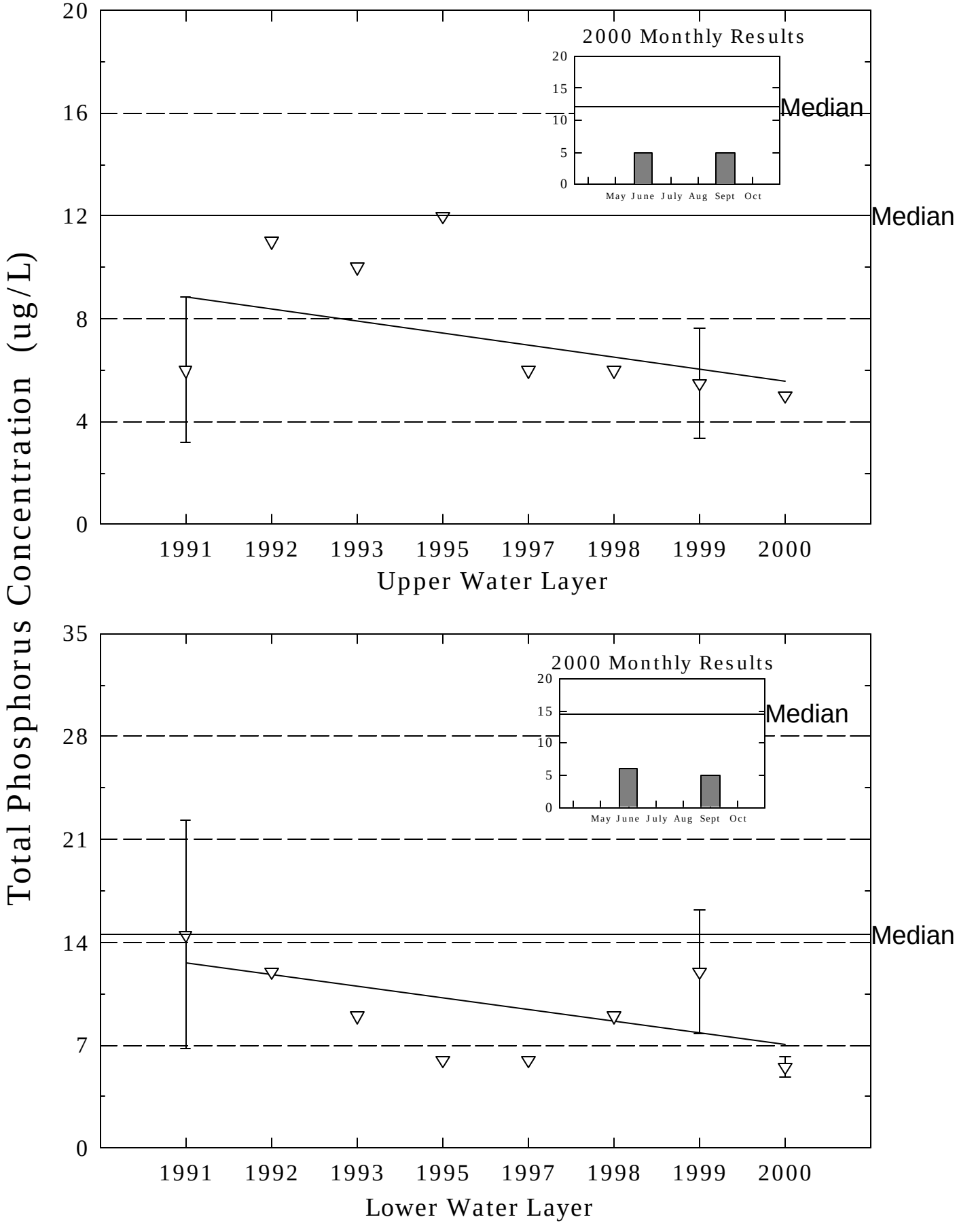


Table 1.

MOUNTAIN LAKE, NORTH HAVERHILL

Chlorophyll-a results (mg/m^3) for current year and historical sampling periods.

Year	Minimum	Maximum	Mean
1991	3.27	5.79	4.53
1992	8.77	8.77	8.77
1993	5.83	5.83	5.83
1995	7.47	7.47	7.47
1997	3.84	3.84	3.84
1998	5.88	5.88	5.88
1999	2.21	2.54	2.37
2000	3.46	4.24	3.85

Table 2.

MOUNTAIN LAKE, NORTH HAVERHILL

Phytoplankton species and relative percent abundance.

Summary for current and historical sampling seasons.

Date of Sample	Species Observed	Relative % Abundance
08 / 14 / 1991	MELOSIRA	35
	ASTERIONELLA	25
	DINOBRYON	15
07 / 17 / 1992	ASTERIONELLA	67
	DINOBRYON	24
	CHRYSOSPHAERELLA	6
08 / 26 / 1993	MELOSIRA	35
	CHRYSOSPHAERELLA	35
	SYNEARA	17
08 / 31 / 1995	MELOSIRA	51
	CERATIUM	18
	STAURASTRUM	8
08 / 13 / 1997	ASTERIONELLA	91
	CERATIUM	6
	DINOBRYON	2
09 / 24 / 1998	DINOBRYON	50
	SYNURA	30
	ASTERIONELLA	10
06 / 24 / 1999	CHRYSOSPHAERELLA	46
	DINOBRYON	33
	TABELLARIA	
09 / 09 / 1999	ASTERIONELLA	44
	MELOSIRA	31
	CYCLOTELLA	16
06 / 06 / 2000	UROGLENOPSIS	42
	ASTERIONELLA	27
	DINOBRYON	14
09 / 12 / 2000	DINOBRYON	51
	ASTERIONELLA	22
	SPHAEROCYSTIS	12

Table 3.

MOUNTAIN LAKE, NORTH HAVERHILL

Summary of current and historical Secchi Disk transparency results (in meters).

Year	Minimum	Maximum	Mean
1991	2.5	5.3	3.9
1992	3.2	3.2	3.2
1993	3.4	3.4	3.4
1995	2.9	2.9	2.9
1997	3.7	3.7	3.7
1998	2.9	2.9	2.9
1999	4.9	5.3	5.1
2000	3.3	4.5	3.9

Table 4.

MOUNTAIN LAKE, NORTH HAVERHILL

pH summary for current and historical sampling seasons.
Values in units, listed by station and year.

Station	Year	Minimum	Maximum	Mean
EPILIMNION				
	1991	7.16	7.20	7.18
	1992	7.23	7.23	7.23
	1993	7.31	7.31	7.31
	1995	7.04	7.04	7.04
	1997	7.09	7.09	7.09
	1998	7.15	7.15	7.15
	1999	7.14	7.20	7.17
	2000	6.97	7.17	7.06
HYPOLIMNION				
	1991	6.67	7.12	6.84
	1992	7.11	7.11	7.11
	1993	7.26	7.26	7.26
	1995	7.11	7.11	7.11
	1997	6.97	6.97	6.97
	1998	7.92	7.92	7.92
	1999	6.56	6.64	6.60
	2000	6.30	6.93	6.51
OUTLET				
	1991	7.36	7.36	7.36
	1993	7.42	7.42	7.42
	1995	7.31	7.31	7.31
	1997	7.05	7.05	7.05
	1998	7.26	7.26	7.26
	1999	7.33	7.33	7.33
	2000	6.91	7.19	7.03

Table 5.

MOUNTAIN LAKE, NORTH

HAVERHILL

Summary of current and historical Acid Neutralizing Capacity.
Values expressed in mg/L as CaCO .

Epilimnetic Values

Year	Minimum	Maximum	Mean
1991	12.80	12.80	12.80
1992	13.10	13.10	13.10
1993	12.90	12.90	12.90
1995	14.80	14.80	14.80
1997	14.40	14.40	14.40
1998	18.10	18.10	18.10
1999	12.10	17.90	15.00
2000	8.30	13.80	11.05

Table 6.

MOUNTAIN LAKE, NORTH HAVERHILL

Specific conductance results from current and historic sampling seasons. Results in uMhos/cm.

Station	Year	Minimum	Maximum	Mean
EPILIMNION				
	1991	69.8	73.5	71.6
	1992	77.9	77.9	77.9
	1993	81.6	81.6	81.6
	1995	83.0	83.0	83.0
	1997	74.2	74.2	74.2
	1998	83.2	83.2	83.2
	1999	78.8	84.1	81.4
	2000	66.7	74.7	70.7
HYPOLIMNION				
	1991	69.5	80.0	74.7
	1992	78.8	78.8	78.8
	1993	84.2	84.2	84.2
	1995	82.6	82.6	82.6
	1997	75.1	75.1	75.1
	1998	84.3	84.3	84.3
	1999	79.1	95.6	87.3
	2000	69.4	75.0	72.2
OUTLET				
	1991	70.6	70.6	70.6
	1993	82.3	82.3	82.3
	1995	83.5	83.5	83.5
	1997	75.9	75.9	75.9
	1998	85.5	85.5	85.5
	1999	78.5	78.5	78.5
	2000	66.9	74.7	70.8

Table 8.

MOUNTAIN LAKE, NORTH HAVERHILL

Summary historical and current sampling season Total Phosphorus data. Results in ug/L.

Station	Year	Minimum	Maximum	Mean
EPILIMNION				
	1991	4	8	6
	1992	11	11	11
	1993	10	10	10
	1995	12	12	12
	1997	6	6	6
	1998	6	6	6
	1999	4	7	5
	2000	< 5	5	5
HYPOLIMNION				
	1991	9	20	14
	1992	12	12	12
	1993	9	9	9
	1995	6	6	6
	1997	6	6	6
	1998	9	9	9
	1999	9	15	12
	2000	5	6	5
OUTLET				
	1991	8	8	8
	1993	8	8	8
	1995	5	5	5
	1997	4	4	4
	1998	6	6	6
	1999	5	5	5
	2000	< 5	5	5

Table 9.

MOUNTAIN LAKE, NORTH HAVERHILL

Current year dissolved oxygen and temperature data.

Depth (meters)	Temperature (celsius)	Dissolved Oxygen (mg/L)	Saturation (%)
	June 6, 2000		
0.1	17.3	8.7	91.1
1.0	17.4	8.6	89.4
2.0	17.3	8.6	89.7
3.0	16.8	8.0	82.3
4.0	15.3	8.1	80.4
5.0	13.0	6.3	59.4
6.0	11.4	3.1	28.4
7.0	9.7	1.2	10.9
	September 12, 2000		
0.1	20.8	8.8	98.0
1.0	20.8	8.8	98.0
2.0	20.8	8.8	98.0
3.0	20.8	8.8	97.9
4.0	20.7	8.8	97.6
5.0	20.5	8.5	94.5
6.0	19.2	5.7	61.5
6.5	15.7	1.2	12.3

Table 10.

MOUNTAIN LAKE, NORTH
HAVERHILL

Historic Hypolimnetic dissolved oxygen and temperature data.

Date	Depth (meters)	Temperature (celsius)	Dissolved Oxygen (mg/L)	Saturation (%)
June 13, 1990	4.0	12.5	5.4	50.6
July 10, 1991	5.0	20.5	4.1	45.8
August 14, 1991	7.5	10.9	0.3	2.7
July 17, 1992	5.0	18.0	0.7	7.4
August 26, 1993	5.5	19.9	0.6	6.0
August 31, 1995	6.0	20.0	7.5	82.0
August 13, 1997	5.0	21.0	2.2	24.0
September 24, 1998	5.0	18.2	7.2	76.0
June 24, 1999	7.0	12.3	1.7	15.5
June 6, 2000	7.0	9.7	1.2	10.9
September 12, 2000	6.5	15.7	1.2	12.3

Table 11.

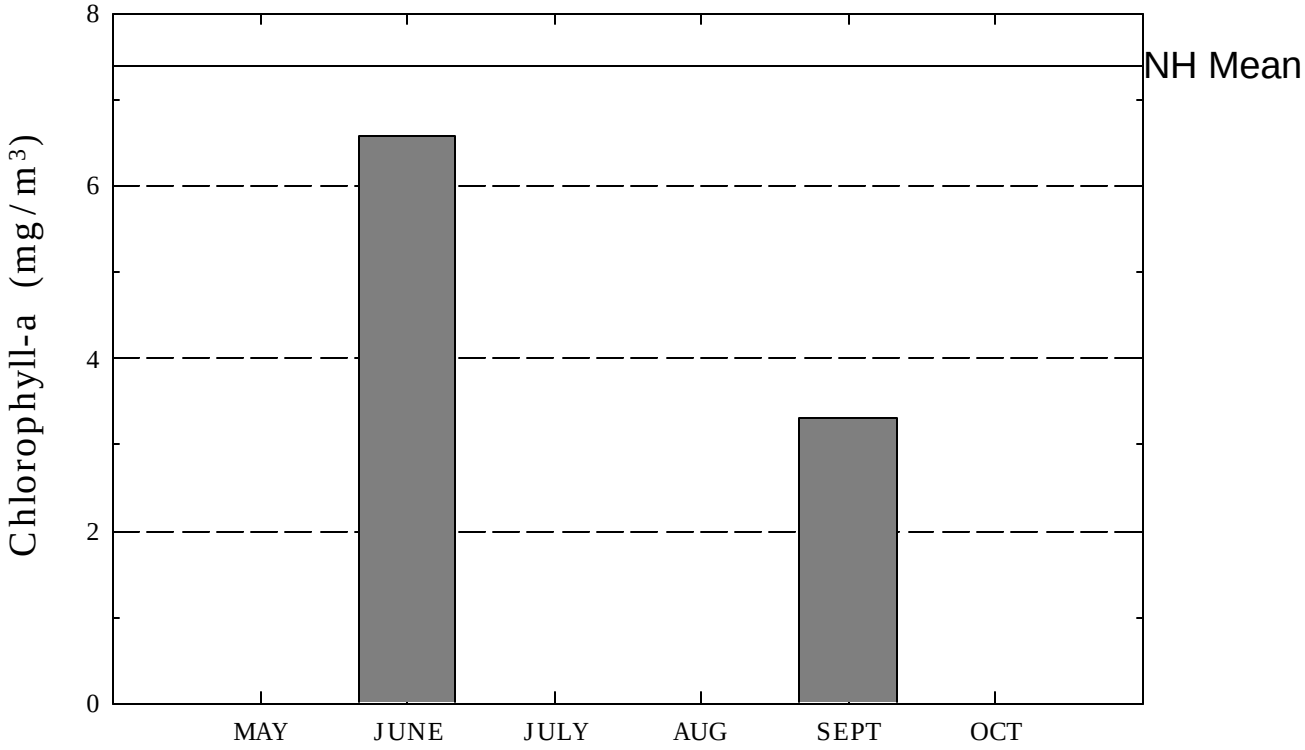
MOUNTAIN LAKE, NORTH
HAVERHILL

Summary of current year and historic turbidity sampling.
Results in NTU's.

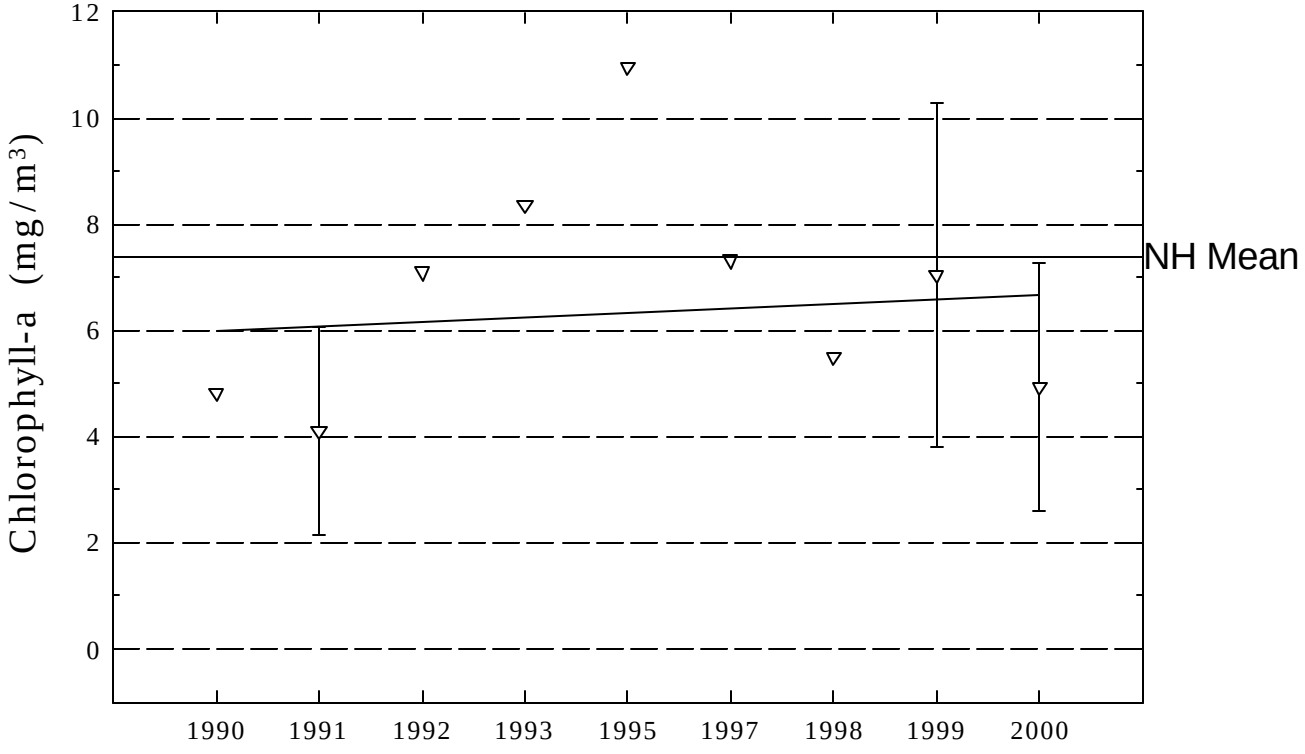
Station	Year	Minimum	Maximum	Mean
EPILIMNION				
	1997	0.6	0.6	0.6
	1998	1.0	1.0	1.0
	1999	0.3	0.4	0.4
	2000	0.3	0.4	0.3
HYPOLIMNION				
	1997	0.7	0.7	0.7
	1998	1.1	1.1	1.1
	1999	1.0	3.6	2.3
	2000	0.6	1.3	0.9
OUTLET				
	1997	0.4	0.4	0.4
	1998	0.9	0.9	0.9
	1999	0.4	0.4	0.4
	2000	0.3	0.5	0.4

Mountain Lake, South

Figure 1. Monthly and Historical Chlorophyll-a Results



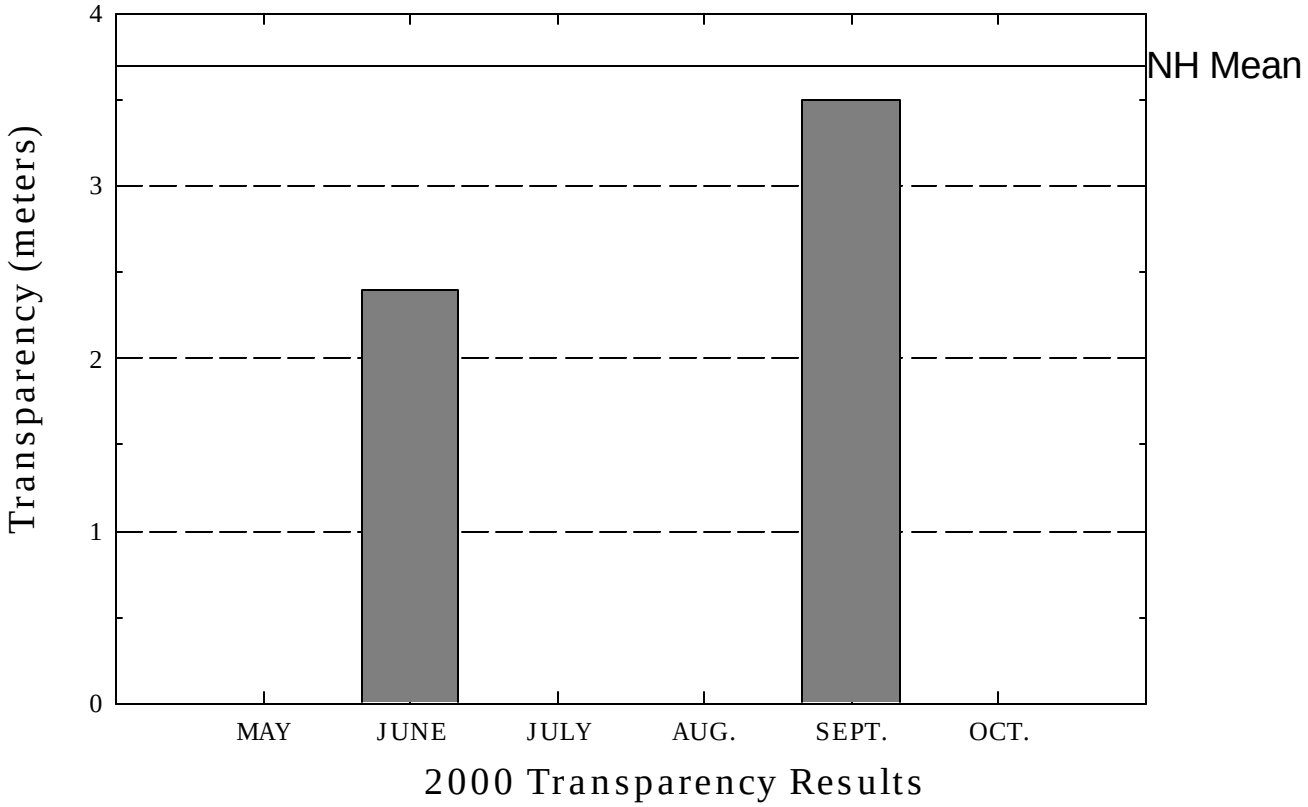
2000 Chlorophyll-a Results

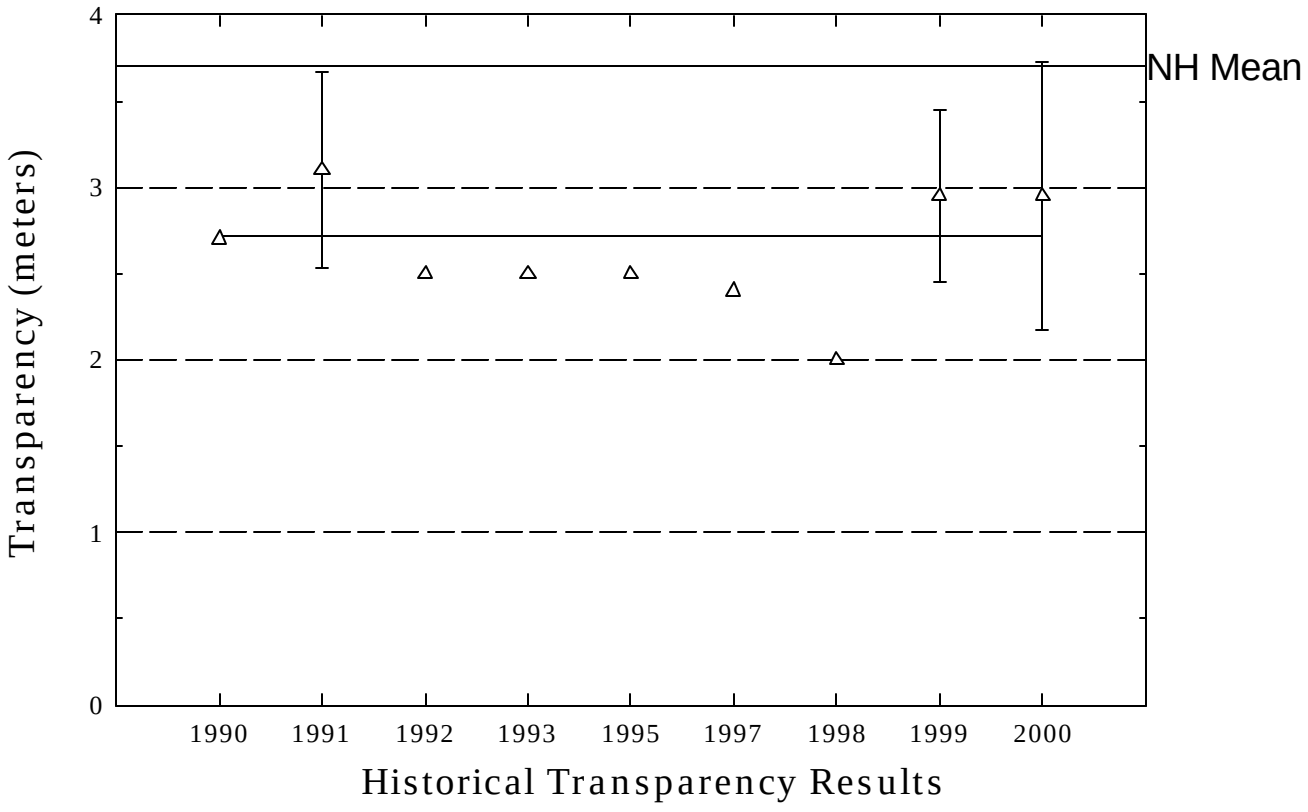


Historical Chlorophyll-a Results

Mountain Lake, South

Figure 2. Monthly and Historical Transparency Results





Mountain Lake, South

Figure 3. Monthly and Historical Total Phosphorus Data.

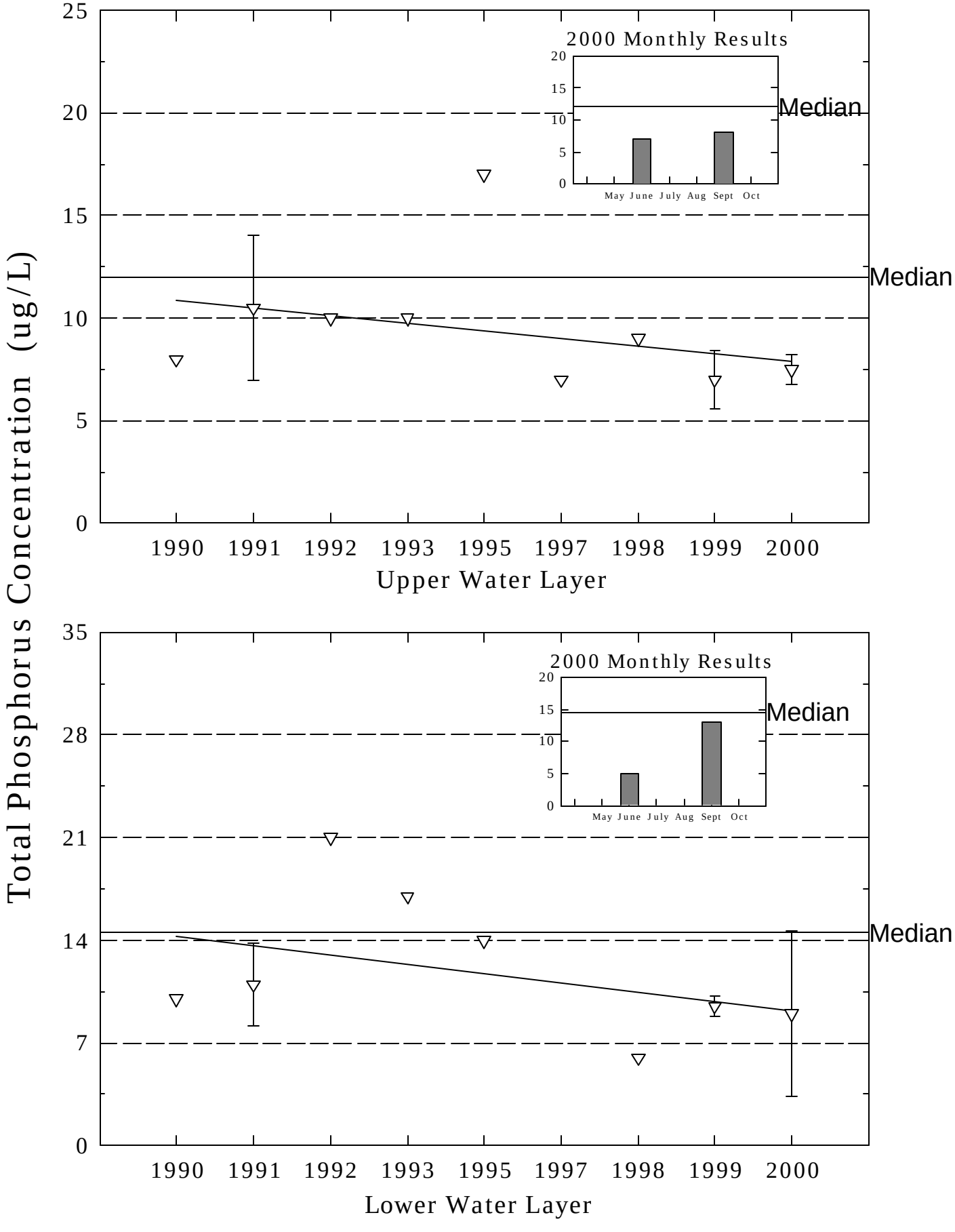


Table 1.

MOUNTAIN LAKE, SOUTH HAVERHILL

Chlorophyll-a results (mg/m^3) for current year and historical sampling periods.

Year	Minimum	Maximum	Mean
1990	4.83	4.83	4.83
1991	2.73	5.50	4.11
1992	7.11	7.11	7.11
1993	8.36	8.36	8.36
1995	10.96	10.96	10.96
1997	7.33	7.33	7.33
1998	5.50	5.50	5.50
1999	4.76	9.32	7.04
2000	3.30	6.59	4.94

Table 2.

MOUNTAIN LAKE, SOUTH HAVERHILL

Phytoplankton species and relative percent abundance.

Summary for current and historical sampling seasons.

Date of Sample	Species Observed	Relative % Abundance
06 / 13 / 1990	MELOSIRA	81
08 / 14 / 1991	MELOSIRA	87
	RHIZOSOLENIA	12
07 / 17 / 1992	ASTERIONELLA	67
	DINOBRYON	24
	CHRYSOSPHAERELLA	6
08 / 26 / 1993	MELOSIRA	77
	SYNEARA	18
08 / 31 / 1995	MELOSIRA	67
	CHRYSOSPHAERELLA	19
	DINOBRYON	10
08 / 13 / 1997	DINOBRYON	57
	ASTERIONELLA	34
	CERATIUM	7
09 / 24 / 1998	DINOBRYON	75
	MELOSIRA	21
	CHRYSOSPHAERELLA	3
06 / 24 / 1999	DINOBRYON	68
	RHIZOSOLENIA	11
	MELOSIRA	7
09 / 09 / 1999	DINOBRYON	84
	ASTERIONELLA	16
	MELOSIRA	10
06 / 06 / 2000	MOUGEOTIA	57
	DINOBRYON	32
	RHIZOSOLENIA	9
09 / 12 / 2000	ASTERIONELLA	32
	MOUGEOTIA	29
	CERATIUM	11

Table 3.

MOUNTAIN LAKE, SOUTH HAVERHILL

Summary of current and historical Secchi Disk transparency results (in meters).

Year	Minimum	Maximum	Mean
1990	2.7	2.7	2.7
1991	2.7	3.5	3.1
1992	2.5	2.5	2.5
1993	2.5	2.5	2.5
1995	2.5	2.5	2.5
1997	2.4	2.4	2.4
1998	2.0	2.0	2.0
1999	2.6	3.3	2.9
2000	2.4	3.5	2.9

Table 4.

MOUNTAIN LAKE, SOUTH HAVERHILL

pH summary for current and historical sampling seasons.
Values in units, listed by station and year.

Station	Year	Minimum	Maximum	Mean
EPILIMNION				
	1990	7.25	7.25	7.25
	1991	7.40	7.40	7.40
	1992	7.14	7.14	7.14
	1993	7.33	7.33	7.33
	1995	7.30	7.30	7.30
	1997	7.06	7.06	7.06
	1998	7.01	7.01	7.01
	1999	7.13	7.51	7.28
	2000	6.82	7.25	6.98
HYPOLIMNION				
	1990	6.69	6.69	6.69
	1991	7.00	7.24	7.10
	1992	6.74	6.74	6.74
	1993	7.01	7.01	7.01
	1995	7.20	7.20	7.20
	1998	7.06	7.06	7.06
	1999	6.92	7.35	7.08
	2000	6.72	6.99	6.83
MONTEAU INLET				
	1990	7.14	7.14	7.14
	1991	7.18	7.20	7.19
	1998	7.05	7.05	7.05
	1999	6.97	7.09	7.03
	2000	6.87	6.93	6.90

Table 4.

MOUNTAIN LAKE, SOUTH HAVERHILL

pH summary for current and historical sampling seasons.
Values in units, listed by station and year.

Station	Year	Minimum	Maximum	Mean
OUTLET				
	1990	7.24	7.24	7.24
	1991	7.40	7.40	7.40
	1995	7.29	7.29	7.29
	1997	7.17	7.17	7.17

Table 5.

MOUNTAIN LAKE, SOUTH

HAVERHILL

Summary of current and historical Acid Neutralizing Capacity.
Values expressed in mg/L as CaCO .

Epilimnetic Values

Year	Minimum	Maximum	Mean
1990	12.30	12.30	12.30
1991	15.50	15.90	15.70
1992	12.60	12.60	12.60
1993	15.50	15.50	15.50
1995	15.10	15.10	15.10
1997	16.30	16.30	16.30
1998	19.20	19.20	19.20
1999	16.50	22.40	19.45
2000	9.70	19.00	14.35

Table 6.

MOUNTAIN LAKE, SOUTH HAVERHILL

Specific conductance results from current and historic sampling seasons. Results in uMhos/cm.

Station	Year	Minimum	Maximum	Mean
EPILIMNION				
	1990	74.0	74.0	74.0
	1991	81.1	83.8	82.4
	1992	90.9	90.9	90.9
	1993	99.9	99.9	99.9
	1995	97.8	97.8	97.8
	1997	86.0	86.0	86.0
	1998	87.1	87.1	87.1
	1999	92.8	102.7	97.7
	2000	69.6	87.2	78.4
HYPOLIMNION				
	1990	74.2	74.2	74.2
	1991	79.8	84.9	82.3
	1992	91.4	91.4	91.4
	1993	100.5	100.5	100.5
	1995	96.4	96.4	96.4
	1998	97.4	97.4	97.4
	1999	92.6	103.4	98.0
	2000	66.1	86.6	76.4
MONTEAU INLET				
	1990	73.2	73.2	73.2
	1991	70.6	104.9	87.7
	1998	101.2	101.2	101.2
	1999	105.9	114.0	109.9
	2000	70.1	102.6	86.3

Table 6.

MOUNTAIN LAKE, SOUTH HAVERHILL

Specific conductance results from current and historic sampling seasons. Results in uMhos/cm.

Station	Year	Minimum	Maximum	Mean
OUTLET				
	1990	69.2	69.2	69.2
	1991	75.8	75.8	75.8
	1995	96.6	96.6	96.6
	1997	86.9	86.9	86.9

Table 8.

MOUNTAIN LAKE, SOUTH HAVERHILL

Summary historical and current sampling season Total Phosphorus data. Results in ug/L.

Station	Year	Minimum	Maximum	Mean
EPILIMNION				
	1990	8	8	8
	1991	8	13	10
	1992	10	10	10
	1993	10	10	10
	1995	17	17	17
	1997	7	7	7
	1998	9	9	9
	1999	6	8	7
	2000	7	8	7
HYPOLIMNION				
	1990	10	10	10
	1991	9	13	11
	1992	21	21	21
	1993	17	17	17
	1995	14	14	14
	1998	6	6	6
	1999	9	10	9
	2000	< 5	13	9
MONTEAU INLET				
	1990	5	5	5
	1991	6	7	6
	1998	9	9	9
	1999	8	14	11
	2000	< 5	33	19

Table 8.

MOUNTAIN LAKE, SOUTH HAVERHILL

Summary historical and current sampling season Total Phosphorus data. Results in ug/L.

Station	Year	Minimum	Maximum	Mean
OUTLET				
	1990	5	5	5
	1991	6	6	6
	1995	10	10	10
	1997	5	5	5

Table 9.

MOUNTAIN LAKE, SOUTH HAVERHILL

Current year dissolved oxygen and temperature data.

Depth (meters)	Temperature (celsius)	Dissolved Oxygen (mg/L)	Saturation (%)
		June 6, 2000	
0.1	17.0	8.3	86.0
1.0	17.0	8.3	85.6
2.0	15.0	8.0	79.2
3.0	12.0	9.6	89.0
4.0	10.0	6.5	57.7
5.0	10.0	2.8	24.7
		September 12, 2000	
0.1	20.5	9.0	100.1
1.0	20.5	8.9	99.4
2.0	20.5	8.9	99.2
3.0	20.4	8.9	98.9
4.0	19.1	5.2	56.7

Table 10.

MOUNTAIN LAKE, SOUTH
HAVERHILL

Historic Hypolimnetic dissolved oxygen and temperature data.

Date	Depth (meters)	Temperature (celsius)	Dissolved Oxygen (mg/L)	Saturation (%)
July 10, 1991	4.0	14.8	0.4	4.0
August 14, 1991	4.0	19.8	0.2	2.2
July 17, 1992	5.0	11.0	0.0	0.0
August 26, 1993	4.0	18.3	6.4	67.0
August 31, 1995	4.0	19.0	4.8	51.0
August 13, 1997	2.5	21.6	5.8	64.0
September 24, 1998	4.0	16.6	8.0	81.0
June 24, 1999	4.0	16.3	0.5	5.1
June 6, 2000	5.0	10.0	2.8	24.7
September 12, 2000	4.0	19.1	5.2	56.7

Table 11.

MOUNTAIN LAKE, SOUTH HAVERHILL

Summary of current year and historic turbidity sampling.
Results in NTU's.

Station	Year	Minimum	Maximum	Mean
EPILIMNION				
	1997	0.5	0.5	0.5
	1998	2.1	2.1	2.1
	1999	0.6	0.6	0.6
	2000	0.6	0.6	0.6
HYPOLIMNION				
	1998	1.7	1.7	1.7
	1999	0.7	1.2	1.0
	2000	1.2	1.2	1.2
MONTEAU INLET				
	1998	1.1	1.1	1.1
	1999	1.1	1.2	1.1
	2000	0.5	6.0	3.2
OUTLET				
	1997	0.5	0.5	0.5